#7

SEQUENCE LISTING

<110> Garnaat, Carl W.
Lowe, Keith S.
Roth, Bradley A.

<120> ZmAxig1 Polynucleotides and Methods of
Use

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<150> US 60/217,942
<151> 2000-07-13

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acgcacatga ccgcagtgcg cgcggggctg atcaagggaa agtgatcgg atg gag ctg     178
                                                       Met Glu Leu
                                                        1

gag ctc ggg ctc gcg ccg ccg aac ccg cat cag ccg ctg gct gcc gcc       226
Glu Leu Gly Leu Ala Pro Pro Asn Pro His Gln Pro Leu Ala Ala Ala
 5                  10                  15

gcc gag ttc gtc ggt ctc ctc agc agc tcg gct ggc tcg tgc ggg aac       274
Ala Glu Phe Val Gly Leu Leu Ser Ser Ser Ala Gly Ser Cys Gly Asn
20                  25                  30                  35

aag agg gtt ctc ggc gac gcg ttc ggg gcc gcc aag gcg gcc acg ctt       322
Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala Ala Thr Leu
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ccg ctc ttc gtc tgc gag gat ggc gac gga ggc ggc ggc gac cgc gac       370
Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly Asp Arg Asp
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cgc gac ggc gtc gtc gac cat gaa cag caa agc aac aat gta ccc agg       418
Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn Val Pro Arg
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1

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Lys Lys Arg Leu Val Gly Trp Pro Pro Val Lys Cys Ala Arg Arg Arg
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agc tgc ggc ggc ggg tac gtg aag gtg aag ctg gaa ggg gtg ccc atc        514
Ser Cys Gly Gly Gly Tyr Val Lys Val Lys Leu Glu Gly Val Pro Ile
100             105             110             115

ggg cgg aag gtg gac gtg tcc atc cac ggc tcg tac cag gag ctg ctc        562
Gly Arg Lys Val Asp Val Ser Ile His Gly Ser Tyr Gln Glu Leu Leu
            120             125             130

cgc acg ctc gag agc atg ttc cct tcg ggt aac caa caa gat cat gca        610
Arg Thr Leu Glu Ser Met Phe Pro Ser Gly Asn Gln Gln Asp His Ala
            135             140             145

gaa gac gag gtg gtg gtc tcg cac gag cgc cgc cgt cgc cat cct tat        658
Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg His Pro Tyr
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gta gtc acc tac gag gac ggc gaa ggg gac tgg ttg ctc gtc gga gat        706
Val Val Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu Val Gly Asp
    165             170             175

gat gtg ccg tgg gag gtc ttt gtc aag tca gtg aag cgg ctc aag ata        754
Asp Val Pro Trp Glu Val Phe Val Lys Ser Val Lys Arg Leu Lys Ile
180             185             190             195

ctt gcg tag ccgacggtcg gcgcctcaga gacgtcgtgt ggtccgtctc             803
Leu Ala  *


accaggatcg gagcagtgta gtactcctgg gcgtcatctg cgtaataacg ttgtttctgt       863
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Cys Gly Asn Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala
        35              40              45
Ala Thr Leu Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly
    50              55              60
Asp Arg Asp Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn
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2

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Val Pro Arg Lys Lys Arg Leu Val Gly Trp Pro Pro Val Lys Cys Ala
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Arg Arg Arg Ser Cys Gly Gly Gly Tyr Val Lys Val Lys Leu Glu Gly
                        100                         105                         110
Val Pro Ile Gly Arg Lys Val Asp Val Ser Ile His Gly Ser Tyr Gln
                115                         120                         125
Glu Leu Leu Arg Thr Leu Glu Ser Met Phe Pro Ser Gly Asn Gln Gln
            130                         135                         140
Asp His Ala Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg
145                         150                         155                         160
His Pro Tyr Val Val·Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu
                        165                         170                         175
Val Gly Asp Asp Val Pro Trp Glu Val Phe Val Lys Ser Val Lys Arg
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Leu Lys Ile Leu Ala
            195


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        <213> Zea mays


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tgtacggcta catcgaacat atacacgaga tgtctcgtgt gaatagagtc actaatgcct    180
taagcatcgg ttactccgta gggtacattc tgttcttctt atttgtgcat attttttattg    240
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ggctacaaca taagacaata tagtcgtttg aagattgaac ctatatatcg gtacggttaa    540
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atcgttatcg atcgatcgat cgcgtcactc acgggtagct catggtcgag cgtagcatgc   1140
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tgtacggcta catcgaacat atacacgaga tgtctcgtgt gaatagagtc actaatgcct    180
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cataaatcca aagtaggagc ggtgcatgat gagaatcgct ctcagtactc gacataatga     660
accttacgag gtacaacagg caggcaggca gggaccaggg gccgccttta tttcaggctc     720
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caacccactc acgaaacccc gtcccggccg tgcccgtgtc ggtccgcgct cggcaacgag     960
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atcgttatcg atcgatcgat cgcgtcactc acgggtagct catggtcgag cgtagcatgc    1140
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4

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tag                                                                  3123

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<213> Zea mays

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<212> DNA
<213> Zea mays

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<212> DNA
<213> Zea mays

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6

<213> Zea mays

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aacgtatcct cacacatcac aagaacgaca cacagaaacc agtagccact actccatcca    1380
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7

<210> 18
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<212> DNA
<213> Zea mays

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cgggcggcgc caacaatggc ggcgctgctc agcagcatgc ggcgccggcg atccgcgagc     180
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cgatgagatt atttcaaaaa aaaaaaaaaa aaa                                 1173
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<210> 19
<211> 763
<212> DNA
<213> Zea mays

<400> 19
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ggcggtgaag agcgcggcgg ccctgcaggg cgtggtggct cgcgccgcgg ctcgtcgtcc     180
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caccagagcg tgtcgcctgc tgcaggatac gccgtccggc ccgttccccg cccgatgcca     300
gcccgtgggt accgcatgca gggcggagac caccgcagcg tgggcggcgt ggctccctgc     360
agctacggag gggcgctcgt ccaggccggt ggaacccaac acgttgttgg attccacgac     420
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tagcctagct tctcagttcc ccgtgtacaa taagaggggc ggtcgcggcg ccgcgccgcg     540
cccttgggtt gggccgggcg ctatgctgca gtttggtttg taaactaacg agcctagggt     600
agctggtgca cgcgcgccac ctcgccggac gtcgccgtcg tcgtcggcat ggacttaacc     660
ggcgggccct gttgttattt ctcaagtttg tagccaacgc actgttcggt gcgttccata     720
atttaattta ccatgttgct ctcgaaaaaa aaaaaaaaaa aaa                       763
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<210> 20
<211> 622
<212> DNA
<213> Zea mays

<400> 20
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aatcggcgac ggcgacgatg gtccgggagc aggaccggct gatgcccgtg ccaacgtgt      180
cccgcatcat gcgccaagtg ctgcctccgt acgccaagat ctccgacgac gcccangaag     240
```

8

```
tnatccaaga attgctnttc ggaatttcat cacttncgtc ctggcgaggc gaaacgaagc    300
ggtgccacac cgagcgccgc aagaccgtca cctccgaaga catcgtgtgg gccatgagcc    360
gcctcggctt cgacgactac gtcgcgcccc tcggcgcctt cctccagcgc atgcgcgacn    420
acagcgaaca cgggggtgaa aacgcggcgg cctgcangggg gtngtggtcn cgccgcgggt    480
cgtctncttg gcgctccctt gccgcaanag atgacaactt gcaccaaacg tctgccgggn    540
tcggaccaaa actnttccct gttgcaggaa tacccgtccn gggccnttcc cccccnaatc    600
caaccatttg gtttcccctt gc                                            622
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        <210> 21
        <211> 65
        <212> PRT
        <213> Zea mays


        <400> 21

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Arg Xaa Xaa Leu Pro Xaa His Ala Lys Ile Ser Asp Asp Ala Lys Glu
            20              25                  30
Xaa Ile Gln Glu Cys Val Ser Glu Tyr Ile Ser Phe Xaa Thr Xaa Glu
        35              40                  45
Ala Asn Xaa Arg Cys Xaa Xaa Xaa Xaa Arg Lys Thr Xaa Xaa Xaa Glu
    50                  55                  60
Xaa
65
```